SEQUENCE LISTING

<110> The Scripps Research Institute
      Cheresh, David A.
      Paul, Robert
      Eliceiri, Brian

<120> Method of Treatment of Myocardial
   Infarction

<130> TSRI-651.6

<150> 10/298,377
<151> 2002-11-18

<150> 09/538,248
<151> 2000-03-29

<150> 09/470,881
<151> 1999-12-22

<150> PCT/US99/11780
<151> 1999-05-28

<150> 60/087,220
<151> 1998-05-29

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agctcctgag aag atg tca gca ata cag gcc gcc tgg cca tcc ggt aca   169
               Met Ser Ala Ile Gln Ala Ala Trp Pro Ser Gly Thr
                1   5   10

gaa tgt att gcc aag tac aac ttc cac ggc act gcc gag cag gac ctg   217
Glu Cys Ile Ala Lys Tyr Asn Phe His Gly Thr Ala Glu Gln Asp Leu
          15   20   25

ccc ttc tgc aaa gga gac gtg ctc acc att gtg gcc gtc acc aag gac   265

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```
Pro Phe Cys Lys Gly Asp Val Leu Thr Ile Val Ala Val Thr Lys Asp
    30              35              40
```

```
ccc aac tgg tac aaa gcc aaa aac aag gtg ggc cgt gag ggc atc atc   313
Pro Asn Trp Tyr Lys Ala Lys Asn Lys Val Gly Arg Glu Gly Ile Ile
45              50              55              60
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```
cca gcc aac tac gtc cag aag cgg gag ggc gtg aag gcg ggt acc aaa   361
Pro Ala Asn Tyr Val Gln Lys Arg Glu Gly Val Lys Ala Gly Thr Lys
                65              70              75
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```
ctc agc ctc atg cct tgg ttc cac ggc aag atc aca cgg gag cag gct   409
Leu Ser Leu Met Pro Trp Phe His Gly Lys Ile Thr Arg Glu Gln Ala
            80              85              90
```

```
gag cgg ctt ctg tac ccg ccg gag aca ggc ctg ttc ctg gtg cgg gag   457
Glu Arg Leu Leu Tyr Pro Pro Glu Thr Gly Leu Phe Leu Val Arg Glu
            95              100             105
```

```
agc acc aac tac ccc gga gac tac acg ctg tgc gtg agc tgc gac ggc   505
Ser Thr Asn Tyr Pro Gly Asp Tyr Thr Leu Cys Val Ser Cys Asp Gly
        110             115             120
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```
aag gtg gag cac tac cgc atc atg tac cat gcc agc aag ctc agc atc   553
Lys Val Glu His Tyr Arg Ile Met Tyr His Ala Ser Lys Leu Ser Ile
125             130             135             140
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gac gag gag gtg tac ttt gag aac ctc atg cag ctg gtg gag cac tac   601
Asp Glu Glu Val Tyr Phe Glu Asn Leu Met Gln Leu Val Glu His Tyr
                145             150             155
```

```
acc tca gac gca gat gga ctc tgt acg cgc ctc att aaa cca aag gtc   649
Thr Ser Asp Ala Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val
                160             165             170
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```
atg gag ggc aca gtg gcg gcc cag gat gag ttc tac cgc agc ggc tgg   697
Met Glu Gly Thr Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp
                175             180             185
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```
gcc ctg aac atg aag gag ctg aag ctg ctg cag acc atc ggg aag ggg   745
Ala Leu Asn Met Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly
        190             195             200
```

```
gag ttc gga gac gtg atg ctg ggc gat tac cga ggg aac aaa gtc gcc   793
Glu Phe Gly Asp Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala
205             210             215             220
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```
gtc aag tgc att aag aac gac gcc act gcc cag gcc ttc ctg gct gaa   841
Val Lys Cys Ile Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu
                225             230             235
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```
gcc tca gtc atg acg caa ctg cgg cat agc aac ctg gtg cag ctc ctg   889
Ala Ser Val Met Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu
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ggc gtg atc gtg gag gag aag ggc ggg ctc tac atc gtc act gag tac      937
Gly Val Ile Val Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr
        255                 260                 265

atg gcc aag ggg agc ctt gtg gac tac ctg cgg tct agg ggt cgg tca      985
Met Ala Lys Gly Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser
        270                 275                 280

gtg ctg ggc gga gac tgt ctc ctc aag ttc tcg cta gat gtc tgc gag     1033
Val Leu Gly Gly Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu
285                 290                 295                 300

gcc atg gaa tac ctg gag ggc aac aat ttc gtg cat cga gac ctg gct     1081
Ala Met Glu Tyr Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala
                305                 310                 315

gcc cgc aat gtg ctg gtg tct gag gac aac gtg gcc aag gtc agc gac     1129
Ala Arg Asn Val Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp
                320                 325                 330

ttt ggt ctc acc aag gag gcg tcc agc acc cag gac acg ggc aag ctg     1177
Phe Gly Leu Thr Lys Glu Ala Ser Ser Thr Gln Asp Thr Gly Lys Leu
                335                 340                 345

cca gtc aag tgg aca gcc cct gag gcc ctg aga gag aag aaa ttc tcc     1225
Pro Val Lys Trp Thr Ala Pro Glu Ala Leu Arg Glu Lys Lys Phe Ser
        350                 355                 360

act aag tct gac gtg tgg agt ttc gga atc ctt ctc tgg gaa atc tac     1273
Thr Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Ile Tyr
365                 370                 375                 380

tcc ttt ggg cga gtg cct tat cca aga att ccc ctg aag gac gtc gtc     1321
Ser Phe Gly Arg Val Pro Tyr Pro Arg Ile Pro Leu Lys Asp Val Val
                385                 390                 395

cct cgg gtg gag aag ggc tac aag atg gat gcc ccc gac ggc tgc ccg     1369
Pro Arg Val Glu Lys Gly Tyr Lys Met Asp Ala Pro Asp Gly Cys Pro
                400                 405                 410

ccc gca gtc tat gaa gtc atg aag aac tgc tgg cac ctg gac gcc gcc     1417
Pro Ala Val Tyr Glu Val Met Lys Asn Cys Trp His Leu Asp Ala Ala
                415                 420                 425

atg cgg ccc tcc ttc cta cag ctc cga gag cag ctt gag cac atc aaa     1465
Met Arg Pro Ser Phe Leu Gln Leu Arg Glu Gln Leu Glu His Ile Lys
        430                 435                 440

acc cac gag ctg cac ctg tga cggctggcct ccgcctgggt catgggcctg        1516
Thr His Glu Leu His Leu *
445                 450
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Gly Asp Val Leu Thr Ile Val Ala Val Thr Lys Asp Pro Asn Trp Tyr
            35                  40                  45
Lys Ala Lys Asn Lys Val Gly Arg Glu Gly Ile Ile Pro Ala Asn Tyr
        50                  55                  60
Val Gln Lys Arg Glu Gly Val Lys Ala Gly Thr Lys Leu Ser Leu Met
65                  70                  75                  80
Pro Trp Phe His Gly Lys Ile Thr Arg Glu Gln Ala Glu Arg Leu Leu
                85                  90                  95
Tyr Pro Pro Glu Thr Gly Leu Phe Leu Val Arg Glu Ser Thr Asn Tyr
                100                 105                 110
Pro Gly Asp Tyr Thr Leu Cys Val Ser Cys Asp Gly Lys Val Glu His
            115                 120                 125
Tyr Arg Ile Met Tyr His Ala Ser Lys Leu Ser Ile Asp Glu Glu Val
    130                 135                 140
Tyr Phe Glu Asn Leu Met Gln Leu Val Glu His Tyr Thr Ser Asp Ala
145                 150                 155                 160
Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val Met Glu Gly Thr
                165                 170                 175
Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp Ala Leu Asn Met
            180                 185                 190
Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly Glu Phe Gly Asp
        195                 200                 205
Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala Val Lys Cys Ile
    210                 215                 220
Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu Ala Ser Val Met
225                 230                 235                 240
Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu Gly Val Ile Val
                245                 250                 255
Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr Met Ala Lys Gly
```

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```
                   260                     265                    270
Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser Val Leu Gly Gly
              275                 280                 285
Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu Ala Met Glu Tyr
    290                 295                 300
Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val
305                 310                 315                 320
Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp Phe Gly Leu Thr
              325                 330                 335
Lys Glu Ala Ser Ser Thr Gln Asp Thr Gly Lys Leu Pro Val Lys Trp
              340                 345                 350
Thr Ala Pro Glu Ala Leu Arg Glu Lys Lys Phe Ser Thr Lys Ser Asp
              355                 360                 365
Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Ile Tyr Ser Phe Gly Arg
    370                 375                 380
Val Pro Tyr Pro Arg Ile Pro Leu Lys Asp Val Val Pro Arg Val Glu
385                 390                 395                 400
Lys Gly Tyr Lys Met Asp Ala Pro Asp Gly Cys Pro Pro Ala Val Tyr
              405                 410                 415
Glu Val Met Lys Asn Cys Trp His Leu Asp Ala Ala Met Arg Pro Ser
              420                 425                 430
Phe Leu Gln Leu Arg Glu Gln Leu Glu His Ile Lys Thr His Glu Leu
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His Leu
    450


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gtaggcgccg gaaggctggg ggccccggag ccggccggc gtggcccgag ttccggtgag 180
cggacggcgg cgcgcgcaga tttgata atg ggc tgc att aaa agt aaa gaa aac 234
                              Met Gly Cys Ile Lys Ser Lys Glu Asn
                               1               5

aaa agt cca gcc att aaa tac aga cct gaa aat act cca gag cct gtc    282
Lys Ser Pro Ala Ile Lys Tyr Arg Pro Glu Asn Thr Pro Glu Pro Val
 10               15               20                 25

agt aca agt gtg agc cat tat gga gca gaa ccc act aca gtg tca cca    330
Ser Thr Ser Val Ser His Tyr Gly Ala Glu Pro Thr Thr Val Ser Pro
                  30               35                 40

tgt ccg tca tct tca gca aag gga aca gca gtt aat ttc agc agt ctt    378
```

Cys Pro Ser Ser Ser Ala Lys Gly Thr Ala Val Asn Phe Ser Ser Leu
            45   50   55

tcc atg aca cca ttt gga gga tcc tca ggg gta acg cct ttt gga ggt   426
Ser Met Thr Pro Phe Gly Gly Ser Ser Gly Val Thr Pro Phe Gly Gly
            60   65   70

gca tct tcc tca ttt tca gtg gtg cca agt tca tat cct gct ggt tta   474
Ala Ser Ser Ser Phe Ser Val Val Pro Ser Ser Tyr Pro Ala Gly Leu
        75   80   85

aca ggt ggt gtt act ata ttt gtg gcc tta tat gat tat gaa gct aga   522
Thr Gly Gly Val Thr Ile Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg
90   95   100   105

act aca gaa gac ctt tca ttt aag aag ggt gaa aga ttt caa ata att   570
Thr Thr Glu Asp Leu Ser Phe Lys Lys Gly Glu Arg Phe Gln Ile Ile
                110   115   120

aac aat acg gaa gga gat tgg tgg gaa gca aga tca atc gct aca gga   618
Asn Asn Thr Glu Gly Asp Trp Trp Glu Ala Arg Ser Ile Ala Thr Gly
                125   130   135

aag aat ggt tat atc ccg agc aat tat gta gcg cct gca gat tcc att   666
Lys Asn Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Ala Asp Ser Ile
            140   145   150

cag gca gaa gaa tgg tat ttt ggc aaa atg ggg aga aaa gat gct gaa   714
Gln Ala Glu Glu Trp Tyr Phe Gly Lys Met Gly Arg Lys Asp Ala Glu
        155   160   165

aga tta ctt ttg aat cct gga aat caa cga ggt att ttc tta gta aga   762
Arg Leu Leu Leu Asn Pro Gly Asn Gln Arg Gly Ile Phe Leu Val Arg
170   175   180   185

gag agt gaa aca act aaa ggt gct tat tcc ctt tct att cgt gat tgg   810
Glu Ser Glu Thr Thr Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp
                190   195   200

gat gag ata agg ggt gac aat gtg aaa cac tac aaa att agg aaa ctt   858
Asp Glu Ile Arg Gly Asp Asn Val Lys His Tyr Lys Ile Arg Lys Leu
                205   210   215

gac aat ggt gga tac tat atc aca acc aga gca caa ttt gat act ctg   906
Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Asp Thr Leu
            220   225   230

cag aaa ttg gtg aaa cac tac aca gaa cat gct gat ggt tta tgc cac   954
Gln Lys Leu Val Lys His Tyr Thr Glu His Ala Asp Gly Leu Cys His
        235   240   245

aag ttg aca act gtg tgt cca act gtg aaa cct cag act caa ggt cta   1002
Lys Leu Thr Thr Val Cys Pro Thr Val Lys Pro Gln Thr Gln Gly Leu

```
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gca aaa gat gct tgg gaa atc cct cga gaa tct ttg cga cta gag gtt    1050
Ala Lys Asp Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu Glu Val
            270                275                280

aaa cta gga caa gga tgt ttc ggc gaa gtg tgg atg gga aca tgg aat    1098
Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn
        285                290                295

gga acc acg aaa gta gca atc aaa aca cta aaa cca ggt aca atg atg    1146
Gly Thr Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Met
        300                305                310

cca gaa gct ttc ctt caa gaa gct cag ata atg aaa aaa tta aga cat    1194
Pro Glu Ala Phe Leu Gln Glu Ala Gln Ile Met Lys Lys Leu Arg His
    315                320                325

gat aaa ctt gtt cca cta tat gct gtt gtt tct gaa gaa cca att tac    1242
Asp Lys Leu Val Pro Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr
330                335                340                345

att gtc act gaa ttt atg tca aaa gga agc tta tta gat ttc ctt aag    1290
Ile Val Thr Glu Phe Met Ser Lys Gly Ser Leu Leu Asp Phe Leu Lys
            350                355                360

gaa gga gat gga aag tat ttg aag ctt cca cag ctg gtt gat atg gct    1338
Glu Gly Asp Gly Lys Tyr Leu Lys Leu Pro Gln Leu Val Asp Met Ala
            365                370                375

gct cag att gct gat ggt atg gca tat att gaa aga atg aac tat att    1386
Ala Gln Ile Ala Asp Gly Met Ala Tyr Ile Glu Arg Met Asn Tyr Ile
        380                385                390

cac cga gat ctt cgg gct gct aat att ctt gta gga gaa aat ctt gtg    1434
His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn Leu Val
    395                400                405

tgc aaa ata gca gac ttt ggt tta gca agg tta att gaa gac aat gaa    1482
Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu
410                415                420                425

tac aca gca aga caa ggt gca aaa ttt cca atc aaa tgg aca gct cct    1530
Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro
                430                435                440

gaa gct gca ctg tat ggt cgg ttt aca ata aag tct gat gtc tgg tca    1578
Glu Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val Trp Ser
            445                450                455

ttt gga att ctg caa aca gaa cta gta aca aag ggc cga gtg cca tat    1626
Phe Gly Ile Leu Gln Thr Glu Leu Val Thr Lys Gly Arg Val Pro Tyr
            460                465                470
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cca ggt atg gtg aac cgt gaa gta cta gaa caa gtg gag cga gga tac   1674
Pro Gly Met Val Asn Arg Glu Val Leu Glu Gln Val Glu Arg Gly Tyr
    475                 480                 485


agg atg ccg tgc cct cag ggc tgt cca gaa tcc ctc cat gaa ttg atg   1722
Arg Met Pro Cys Pro Gln Gly Cys Pro Glu Ser Leu His Glu Leu Met
490                 495                 500                 505


aat ctg tgt tgg aag aag gac cct gat gaa aga cca aca ttt gaa tat   1770
Asn Leu Cys Trp Lys Lys Asp Pro Asp Glu Arg Pro Thr Phe Glu Tyr
                510                 515                 520


att cag tcc ttc ttg gaa gac tac ttc act gct aca gag cca cag tac   1818
Ile Gln Ser Phe Leu Glu Asp Tyr Phe Thr Ala Thr Glu Pro Gln Tyr
                525                 530                 535


cag cca gga gaa aat tta taa ttcaagtagc ctattttata tgcacaaatc      1869
Gln Pro Gly Glu Asn Leu  *
                540
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            20                  25                  30
Gly Ala Glu Pro Thr Thr Val Ser Pro Cys Pro Ser Ser Ser Ala Lys
        35                  40                  45
Gly Thr Ala Val Asn Phe Ser Ser Leu Ser Met Thr Pro Phe Gly Gly
    50                  55                  60
Ser Ser Gly Val Thr Pro Phe Gly Gly Ala Ser Ser Ser Phe Ser Val
65                  70                  75                  80
Val Pro Ser Ser Tyr Pro Ala Gly Leu Thr Gly Gly Val Thr Ile Phe
                85                  90                  95
Val Ala Leu Tyr Asp Tyr Glu Ala Arg Thr Thr Glu Asp Leu Ser Phe
            100                 105                 110
Lys Lys Gly Glu Arg Phe Gln Ile Ile Asn Asn Thr Glu Gly Asp Trp
        115                 120                 125
Trp Glu Ala Arg Ser Ile Ala Thr Gly Lys Asn Gly Tyr Ile Pro Ser
    130                 135                 140
Asn Tyr Val Ala Pro Ala Asp Ser Ile Gln Ala Glu Glu Trp Tyr Phe
145                 150                 155                 160
Gly Lys Met Gly Arg Lys Asp Ala Glu Arg Leu Leu Leu Asn Pro Gly
                165                 170                 175
Asn Gln Arg Gly Ile Phe Leu Val Arg Glu Ser Glu Thr Thr Lys Gly
            180                 185                 190
Ala Tyr Ser Leu Ser Ile Arg Asp Trp Asp Glu Ile Arg Gly Asp Asn
        195                 200                 205
Val Lys His Tyr Lys Ile Arg Lys Leu Asp Asn Gly Gly Tyr Tyr Ile
    210                 215                 220
Thr Thr Arg Ala Gln Phe Asp Thr Leu Gln Lys Leu Val Lys His Tyr
225                 230                 235                 240
Thr Glu His Ala Asp Gly Leu Cys His Lys Leu Thr Thr Val Cys Pro
                245                 250                 255
Thr Val Lys Pro Gln Thr Gln Gly Leu Ala Lys Asp Ala Trp Glu Ile
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```
                260                 265                 270
Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly Gln Gly Cys Phe
        275                 280                 285
Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr Lys Val Ala Ile
        290                 295                 300
Lys Thr Leu Lys Pro Gly Thr Met Met Pro Glu Ala Phe Leu Gln Glu
305                 310                 315                 320
Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu Val Pro Leu Tyr
                325                 330                 335
Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Phe Met Ser
                340                 345                 350
Lys Gly Ser Leu Leu Asp Phe Leu Lys Glu Gly Asp Gly Lys Tyr Leu
                355                 360                 365
Lys Leu Pro Gln Leu Val Asp Met Ala Ala Gln Ile Ala Asp Gly Met
        370                 375                 380
Ala Tyr Ile Glu Arg Met Asn Tyr Ile His Arg Asp Leu Arg Ala Ala
385                 390                 395                 400
Asn Ile Leu Val Gly Glu Asn Leu Val Cys Lys Ile Ala Asp Phe Gly
                405                 410                 415
Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala
        420                 425                 430
Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ala Leu Tyr Gly Arg
        435                 440                 445
Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Gln Thr Glu
        450                 455                 460
Leu Val Thr Lys Gly Arg Val Pro Tyr Pro Gly Met Val Asn Arg Glu
465                 470                 475                 480
Val Leu Glu Gln Val Glu Arg Gly Tyr Arg Met Pro Cys Pro Gln Gly
                485                 490                 495
Cys Pro Glu Ser Leu His Glu Leu Met Asn Leu Cys Trp Lys Lys Asp
                500                 505                 510
Pro Asp Glu Arg Pro Thr Phe Glu Tyr Ile Gln Ser Phe Leu Glu Asp
        515                 520                 525
Tyr Phe Thr Ala Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu
        530                 535                 540
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